Zenone Volpicelli, an Unsung Scholar of Chinese Phonology: An Evaluation of Volpicelli's Ideas and Contributions to Chinese Phonology

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Abstract

For almost forty years, Karlgren's *Études sur la phonologie chinoise* has served as the reference textbook about Chinese phonology in Europe as well as throughout East Asia and the United States. Unfortunately, Karlgren's *magnum opus* has obscured the previously published work on the subject. One of the pioneering works overshadowed by Karlgren is Zenone Volpicelli's *Chinese Phonology* (1896). This paper shall not embark on a campaign to discredit the merits of Bernhard Karlgren. Rather, it shall evaluate the major breakthroughs, the weak points and the legacy of Volpicelli's ideas on traditional Chinese phonology. Furthermore, this paper also humbly aims to elaborate the point that long before Karlgren there were Western scholars who had, *ante tempus*, made significant contributions to the study of Chinese phonology.

Keywords: Volpicelli, historical Chinese phonology, Middle Chinese, rime books, rime tables

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"Und so, nachdem ich mir den Scherz erlaubt, dem eine Stelle zu
gönnen, in diesem durchweg zweideutigen Leben kaum irgend ein Blatt
zu ernsthaft seyn kann, gebe ich mit innigem Ernst das Buch hin, in der
Zuversicht, daß es früh oder spät diejenigen erreichen wird, an welche es
allein gerichtet seyn kann, und übrigens gelassen darin ergeben, daß auch
ihm in vollem Maaße das Schicksal werde, welches in jeder Erkenntniß,
also um so mehr in der wichtigsten, allezeit der Wahrheit zu Theil ward,
der nur ein kurzes Siegesfest beschieden ist, zwischen den beiden langen
Zeiträumen, wo sie als paradox verdammt und als trivial geringgeschätzt
wird. Auch pflegt das erstere Schicksal ihren Urheber mitzutreffen.—
Aber das Leben ist kurz und die Wahrheit wirkt ferne und lebt lange:
sagen wir die Wahrheit."
Arthur Schopenhauer, *Die Welt als Wille und Vorstellung*, Leipzig, 1819,
p. XVI

1.Introduction

Once, a long time ago, I accidentally got lost into the adumbrating depths
of the Vatican Apostolic Library, when my attention was abruptly captured
by a coruscating light falling on an old manuscript about traditional Chinese
phonology. Attracted by this "mystic light" I decided to leaf through the
manuscript, to which this paper is dedicated. I soon realized that its author
was a mysterious non-Jesuit, non-missionary Italian scholar named Zenone
Volpicelli, the sole Italian, to the best of my knowledge, who has made serious
contributions to the field of historical Chinese phonology. From the sketchy
sources of information about this peculiar scholar, it seems that back in those
days Volpicelli was not only a proliferous writer but also the doyen of Italian
diplomacy in East Asia, since his name often emerges in the writings of the
famous Italian journalist and war correspondent Luigi Barzini, Sr. (1874–
1947). Volpicelli was also the zealous author of some fortunate history books
about Russia and the Russo-Chinese and the Russo-Japanese wars, and some of
his essays are still among the best available sources on these topics. However,
the real subject of this paper is Volpicelli's *Chinese Phonology* (1896), which
is the work that perhaps best embodies his intellectual acumen.

2.The Life and Times of Volpicelli

Very little is known about this unsung and eclectic scholar. The sketchy information about his life, which I shall discuss in this paragraph, comes from *Cinque secoli di Italiani a Hong Kong e Macao* (Francesco Brioschi ed., 2014), easily the best reference on the subject, and *L'uomo che tradusse in cinese Dante e Beccaria*, a brief article written by Dino Messina and published in the Italian journal *Il Corriere della Sera* (2014).

Eugenio Zanoni Volpicelli (1856–1936), better known as Zenone Volpicelli, was born in Naples, where he studied mathematics and physics. Some years later, he was granted a scholarship which allowed him to study Arabic and Chinese. In 1881 he was working as an accountant in China, where his outstanding linguistic talent was soon noticed by both Italian and Chinese diplomats, including the famous first class Marquis Suyi 一等肅毅候 Lǐ Hóngzhāng 李鴻章 (1823–1901). In 1886 he moved to Russia where he studied the local language and published a book about the Russo-Chinese War under a Russian *nom de plume* (Vladimir). After a brief return to China, where he published his work on Chinese phonology, he moved again to Russia, one year later, where he published *Russia on the Pacific, and the Siberian Railway* (1897). Two years later, he was appointed *console d'Italia* at Hong Kong and Macau by the Italian Marquis Salvago Raggi. In 1904, after the outbreak of the Russo-Japanese War (1904–05), he was among the rescuers of the Russian cruiser *Varyag* which was sunk near Incheon (South Korea). In the following years, he became acquainted with the great Chinese revolutionary Sun Yat-sen 孫逸仙 (1866–1925). From 1915 to 1919 he studied at the University of Hong Kong where he received a degree *cum laude* in gynaecology! In the following years, he translated Dante's *Divina Commedia* and Beccaria's *Dei delitti e delle pene* into Chinese, before he decided to *aliquid temporis in animum revoco* (dedicate his time to spiritual care). Sometime in the 1930s, he moved to Nagasaki (Japan) where he passed away in 1936. His grave site

was destroyed by the atomic bomb dropped in August 1945, but restored by an unknown Chinese friend of his in the late 1950s.

It is extremely important to keep this chronology of facts in mind in our scrutiny of Volpicelli's *Chinese Phonology*, for his educational background seems to clarify and justify the *raison d'être* of his ideas.

3.Volpicelli's Major Breakthroughs

3.1.An evaluation of *Chinese Phonology* (1896)

Volpicelli's *Chinese Phonology*, *An Attempt to Discover the Sounds of the Ancient Language and to Recover the Lost Rhymes of China* (1896) is divided in four parts: the first is an evaluation of the results obtained by former sinologists, such as Joshua Marshman (1768–1837), Joseph Edkins (1823–1905), John Chalmers (1825–1899), Edward Parker (1849–1926), and especially Stanislas Julien (1797–1873); the second carefully explains the investigative methodology adopted in his book, i.e. a statistical method which is reminiscent of his studies of mathematics and physics; part three is a *sommario* of his investigation of Chinese dialects; the final part represents a test of his own ideas and interpretations pertaining to the traditional categories of Chinese phonology.

Like many of his predecessors and successors, Volpicelli worked mainly from the tables in the *Kāngxī zìdiǎn* 康熙字典, focusing almost exclusively on the second set of tables, which are based on the tradition of the *Sìshēng děngzi* 四聲等子, a tradition which probably dates back to the Northern Song period (960–1126). Volpicelli studied the rime tables, even though his understanding of the subject was not as profound as that of Simon Hartwich Schaank (1897). It might be supposed that Volpicelli preferred the analysis of Chinese dialects, a *modus operandi* which he presumably borrowed from Parker[1] and that was also echoed by Wilhelm Grootaers (1943–45), though Grootaers was clearly

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1   Parker had a distinct distrust of traditional Chinese phonological sources, such as the rime books. For more details, the best reference on the subject is Branner (1999).

influenced not by Volpicelli but by European linguists such as Rousselot, Ascoli and Schuchardt. Volpicelli believed that the rime tables were a mere syllabary (written according to the tradition of Indian grammarians): Chinese idiolects were the real core of his research. It is not surprising that, in Volpicelli's system, the initials, finals, vowels and diphthongs are "reconstructed" on the basis of his analysis of the Chinese dialects and not on the basis of the quite inaccurate *fǎnqiè* 反切 system of the *Kāngxī zìdiǎn*.

A brief description of a rime table in the *Kāngxī zìdiǎn* is given in Fig. 1 below.

Fig. 1 The complete chart for the *Xiàoshè* 效攝 [-au]
Image borrowed from Lǐ Xuéqín 李學勤 and Lǚ Wényù 呂文鬱, *Sì kù dà cídiǎn* 四庫大辭典 (Jilin University Publishing House, 1996), Vol. 1, p. 793.

Its columns are the initial consonants, while the sixteen rows are rhymes arranged according to the tone pitches, with four qualities for each tone pitch. The term 'rime 韻母' is not the exact equivalent to the term 'rhyme 韻腳' as used in general linguistics, i.e. of words which have identical nuclei in stressed syllables or identical sequences of segments after them (Trask, 1996: 311) since, in the case of Chinese, tones should also be taken into account for rhyming. Volpicelli retained almost intact the initial classes as reconstructed by Kühnert (1890) with a couple of exceptions. Volpicelli reconstructed a total of nine classes of initials:

1st class: velars[2] K, K', G, Ng;

2nd class: dentals T, T', D, N;

3rd class: cerebrals[3] (retroflex) T(r), T(r)', D(r), N(i);

4th class: "strong labials" (bilabials) P, P', B, M;

5th class: "weak labials" (labiodentals) F, F', V, W;

6th class: sibilants (dental sibilants) Ts, Ts', Dz, S, Z;

7th class: retroflex sibilants (alveolo-palatal sibilants) Ts(r), Ts(r)', Dz(r), S(r), Z(r);

8th class: aspirates[4] (glottals) Hh, H, *[5], Y;

2　　I have omitted the term 'gutturals', which is an obsolete and non-technical terminology unfortunately still widely diffused—to my sorrow—in Chinese linguistics. The term 'guttural', from Latin *gutturalis* 'throaty', may refer to velars, uvulars, pharyngeals and glottals. It is "[a] meaningless label typically applied by the linguistically unsophisticated to any unfamiliar language or speech variety that doesn't sound like Italian" (Trask, 1996: 164).

3　　The obsolete term 'cerebrals' was a label for 'retroflex' in Indology. It is the translation of the Sanskrit term *murdhanya*.

4　　The obsolete term 'aspirate' was commonly applied to aspirated voiceless or murmured stops and to fricatives. It is quite hard to identify their phonetic value from Volpicelli's notation alone, but given that they refer to *xiǎo* 曉, *xiá* 匣, *yǐng* 影, and *yù* 喻 groups, in this author's opinion the term 'aspirate' was referring to glottal consonants (plosives and fricatives). This is confirmed also by the information about this term given by Trask (1996: 35): "A label commonly applied in nineteenth-century philological treatises in an indifferent manner to aspirated voiceless plosives, to murmured plosives ('voiced aspirates') and to fricatives, all of which were regarded as united by the presence of breath in their articulation."

5　　According to Volpicelli (1896: 15) the symbol '*' corresponds to the Arabic *Hamzah* (*Hamza*) or to the Greek *Spiritus Lenis*. Volpicelli surely was mistaken, since *Hamza* (*Hamzah,* Arabic همزة), which is not one of the traditional 28 letters but a derivation of the letter *'ayn,* represents the glottal stop [ʔ] in Arabic, while the *spīritus lēnis*, or ψιλὸν πνεῦμα (*psilòn pneûma*), or the 'smooth breathing', as it is now called, is a diacritical mark traditionally employed in polytonic orthography which indicates "the absence of aspiration at the beginning of a vowel-initial word" (Trask, 1996: 325), i.e. which marks the absence of the voiceless glottal fricative /h/.

9th class: syllabic rhotics[6] L, Jr.

Volpicelli, like Kühnert (1890), recognized that some classes were in complementary distribution, *viz*. classes 3 (retroflex) and 7 (alveolo-palatal sibilants), and classes 4 (bilabials) and 5 (labiodentals). Furthermore, Volpicelli observed that classes 2 and 6 occur only in Grade I and IV,[7] classes 3 and 7 occur only in Grade II and III, while the 5th class occurs only in Grade III *hékǒu* (labialized). See the figure below (Table 1) for the distribution of initial categories among the four Grades:

Table 1 The affected classes are marked in lightgrey
For further details see Branner (2006a: 153)

Grade	日 來	喻影匣曉	邪心從清精禪審狀穿照	明并滂幫微奉敷非	泥定透端娘澄徹知	疑群溪見
I	Class 9	Class 8	Class 6	Class 4	Class 2	Class 1
II	Class 9	Class 8	Class 7	Class 4	Class 3	Class 1
III	Class 9	Class 8	Class 7	Classes4&5 *(mainly hékǒu)*	Class 3	Class 1
IV	Class 9	Class 8	Class 6	Class 4	Class 2	Class 1

According to Branner (*ibidem*), the complementary distribution was stated in a passage of the *Míng děngdì fǎ* 明等第法, an introductory material to the

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6   Volpicelli did not assign a name to this class. However, since "the class would correspond to the half-vowels *ri* and *li* of Sanscrit [Sanskrit]" (Volpicelli, 1896: 17), I deduce that in Volpicelli's system they represent syllabic rhotics as Sanskrit *r̥* [r□] and *l̥* [l□]. In addition, since Volpicelli (*ibidem*) believed that they "may more easily change into N. Jr. J. which occur so often in dialects and in Japanese," I believe my interpretation is correct. Syllabic *m* [m̩] and *ng* [ŋ̍] occur in the Yue and Min dialects. In addition, Japanese *n* (ンﾝ) is often considered syllabic, though in this author's opinion it is more accurate to consider it as moraic: "The mora appears to be an important rhythmic element in some languages, such as Japanese" (Trask, 1996: 226).

7   The Chinese term *děng* 等 is commonly translated as 'Division', 'Level' or 'Grade'. Here, I follow Pulleyblank's terminology (1962, 1976, and 1984). I do not, however, consider other terminologies inaccurate.

rime tables, which, however, was unknown to Volpicelli.

　　One of the cornerstones of Volpicelli's system is the interpretation of the so-called Grades (Division in Volpicelli's terminology). Volpicelli, following an obscure *dictum* of Jiāng Yǒng 江 永 (1681–1762),[8] interpreted the four Grades in terms of vowel quality. By this point in the development of the field it is believed that the four Grades did not affect vowel quality, but corresponded, instead, to different medials in Middle Chinese (Pān & Zhāng 2015: 86). See Table 2 for a scheme of medials in Middle Chinese:[9]

Table 2　Middle Chinese medials.
The scheme above is taken from Pān & Zhāng (2015: 86)

Grades	I	II	III (Type A)	III (Type B)	IV
Medials	-Ø-	-ɣ-	-ɣi-	-i-	-Ø-

　　Volpicelli's interpretation was a major breakthrough since it contrasted with the picture drawn by Chalmers (1873: 338) and Kühnert (1890), who shared the belief that palatalization was involved in Grades III and IV rimes. Kühnert had studied the rhyme tables very carefully but, as indicated by Volpicelli himself (1896: 8), he was not in China anywhere near long enough to acquire adequate phonetic material by means of dialect analysis. What is important to remark here is that Volpicelli's interpretation of the four Grades, though clearly mistaken, was a serious challenge to the quite obscure phonological mechanism which allegedly produced palatalization in Grade III rimes, a feature that, for better or worse, reigned as the supreme paradigm

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8　"Grade I is the widest, Grade II is less wide, Grades III and IV are thin, with Grade IV being extremely thin" (一等洪大，二等次大，三四皆細，而四尤細). It is not easy, however, to judge from Volpicelli's work alone whether he was really influenced by this *dictum* or not. Jiāng's description seems to correspond to Volpicelli's intuition, but it is not clear whether it had any significant influence on his theory.

9　The scheme below is a mere *résumé* of the current status of understanding of the four Grades, but it does not necessarily epitomize my opinion. It follows that I am not concerned here with the validity of all the examples which, for apodictic reasons, I had to include throughout the entire paper.

of Middle Chinese "reconstructions" until the early 1990s. Schaank (1897), one year later, "reconstructed" a medial -i- in Grade III rimes and two medial-looking symbols which probably represent a particular though unclear quality of the initial consonant (Branner, 2006a: 161). Palatalization or *yodization* (-i̯- in his notation) in Grade III rhymes was one of the core features of Karlgren's Middle and Old Chinese systems. *Yodization,* from ʿ*jotieren*ʾ (to palatalize, from *jot* ʿiotaʾ), a term coined by Kühnert on the basis of the physiological terminology of Ernst Wilhelm von Brücke (see Branner, 2006a: 154), was a feature to which Karlgren stubbornly adhered in spite of the plain evidence that it was problematic or even spurious. It is true that many Chinese dialects show palatalization in Grade III Type B syllables, but other dialects, *de facto*, do not show any palatal glide. Schaank's palatal -i- came from an examination of the Lùfēng dialect 陸豐話 spoken by a Chinese community in Indonesia which effectively shows palatalization in Grades III and IV (Branner, 2006a: 155). However, a wider and more careful examination of Chinese dialects and early transcriptions in those languages where palatal glides are allowed would make clear at the outset that the palatalization, as reconstructed in Karlgren's system, is an unparalleled[10] and phonetically redundant feature which did not occur until a later stage of Middle Chinese. Volpicelli did not include medial glides in his transcriptions of Middle Chinese simply because the ostensible scenario that emerged in his comparisons of the Chinese dialects, though imprecise and undoubtedly flawed, effectively refuted Kühnert's allegation.

There is general agreement among scholars on the fact that palatalization in Grade III rimes did not occur until a later stage of Chinese (Late Old Chinese or Late Middle Chinese). Since Grade III rimes constitute 52% of all rimes as well as 52% of all syllables in *Qieyun*, if Grade III rimes were truly characterized by the presence of a medial glide as believed by Chalmers (1873), Kühnert (1890), Schaank (1897–98), Karlgren (1915–1926) and so

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10   To the best of my knowledge they are absent in almost any other Tibeto-Burman language.

on, Middle Chinese would be a typologically unnatural language. Furthermore, given that most grammatical particles in Old and Middle Chinese are in Grade III, one might expect a quite simple phonological form with few marked sounds for those words. As far as I know, Pulleyblank (1962) and Yakhontov (1965) were the first scholars to reject Karlgren's palatalized glides in Old Chinese. However, as argued in the present paper, palatalization in Grade III rimes was not proposed by Karlgren, he merely continued in the tradition of Chalmers, Kühnert and Schaank, by simply adjusting and drawing out their schemes. With all due respect to Pulleyblank, a very important figure in the field, it was Volpicelli who was the first scholar to try to escape this palatal glide *Leitmotiv*, unfortunately for us without success. Volpicelli's theory was that the four Grades for rime tables were characterized by a different prominent vowel which moved from *o* [ɔ] or *ê* [o][11] in Grade I, to *a* in Grade II, to *e* or *ü* in Grade III, and to *i* in Grade IV. In other words, if Chalmers (1873) and Kühnert (1890) had made use of palatalization and vowel height to distinguish the four Grades of rime tables, Volpicelli based his interpretation of the related phenomena only on vowel height. Furthermore, Volpicelli (1896: 15) observed that diphthongs such as *ia*, *ie*, etc. were absent in Cantonese. Hence, he concluded that "we must be led to suspect that these numerous diphthongs are derived from simpler forms, in which an *i* has been inserted by euphonic necessities, consequent to the change of value in initials through phonetic decay." It is a pity that Volpicelli did not provide further information and did not push on to a deeper analysis, for we do not know whether or not he was referring to the palatalization involved in Grade III rimes. We ignore what the nature of this "phonetic decay" in initial position was, but the solution he summarily proposed, in my opinion, is one which foreshadows the

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11   I am unfortunate enough to disagree with such an authority as David Branner (2006b: 23), who considered this vowel as a *schwa*. Since Volpicelli himself (1896: 20) perceived this sound as corresponding to the Italian "*o stretto*", in this author's opinion, its real phonetic value was a close-mid back rounded vowel.

solution proposed some years later by Yakhontov (1965), who suggested that palatalization in Type B syllables came from a voiced prefix *d-. It is probably incorrect to perceive Volpicelli's idea as prodromic of Yakhontov's voiced prefix theory, but I think that his intuition slightly resembles Yakhontov's view. It is a pity that he did not go further with his idea.

Among Volpicelli's contributions, one is particularly remarkable: the description of Middle Chinese syllable structure. According to Volpicelli (1896: 14), Chinese monosyllables were composed either of a consonant and a vowel (CV), or of a consonant, vowel and "termination" (CVT). Volpicelli also observed "exceptions" to the rule, i.e. monosyllables consisting of an initial vowel and a nasal final (*VN) or a consonant (*VC). Those cases were explained by Volpicelli as having a *spīritus lēnis* in initial position (*cf.* footnote 4). Although this description of Middle Chinese syllables is quite simplistic, Volpicelli's attempt to explain and clarify its morpheme structure was undoubtedly remarkable. Unfortunately, his misunderstanding of the final, intended as the part of the entire syllable without the onset, led him to ignore some segments, though he himself probably considered the above discussed "euphonic -*i*-" as an on-glide. Middle Chinese syllables consist of an initial and a final, which may contain a medial (*viz.* -*i*- or -ɣ-) and a rime, which in turn consists of a nucleus (consisting itself of a vowel and an eventual on-glide) and an ending, such as -*i*, -*u*, -*m*, -*n*, -*ŋ*, -*p*, -*t*, or -*k* depending on the tone.

In addition, Volpicelli misunderstood the nature of the 'entering tone' (入 聲), which he considered a "corrupted form" of nasal endings, such as -ng, -n and -m. This idea was not proposed for the first time by Volpicelli: it was Edkins (1888: 32) who suggested the unconditioned sound change *-*p*, *-*t*, *-*k* < *-*ng*, *-*m*, and *-*n* on the basis of his own interpretation of the evolution of human speech, from which he deduced that "labial sounds" naturally evolved into "dental sounds" and so on. Edkins (1888: 24) also believed that the entering tone finals -p, -t, and -k debuccalized in Wu dialects, a position which did not play a role in Volpicelli's theories.

3.2. Volpicelli's *Prononciation ancienne* (1898)

It seems that Volpicelli's other work on Chinese phonology, *Prononciation ancienne du Chinois* (1898), has been ignored by the academic community. The only mention I have found is in Branner (2006b). This paper is essentially a point of convergence between his previous work and Julien's famous *Méthode pour déchiffrer et transcrire les noms sanscrits qui se rencontrent dans les livres chinois* (1861). This work, presented at the 11th International Congress of Orientalists, adds almost nothing new to the subject, and even though it comes out as a somewhat lengthy article, the syllabary charts occupy, more or less, 63 of the 74 pages. The only difference with his previous *Chinese Phonology* (1896) is that Volpicelli, on the basis of Julien's work, "reconstructed" another vowel, *viz. ǎ,* which is supposed to be "une *a* anglais, comme dans le mot and de cette langue" (Volpicelli, 1898: 120). It is evident, hence, that Volpicelli's ǎ indicates the near-open front vowel æ. However, its distribution is very limited, merely confined to after "chuintantes-cérébrales" (i.e. retroflex sibilant fricatives) initials. On the basis of this last work, we can see that the vowel system of Middle Chinese postulated by Volpicelli is as follows:
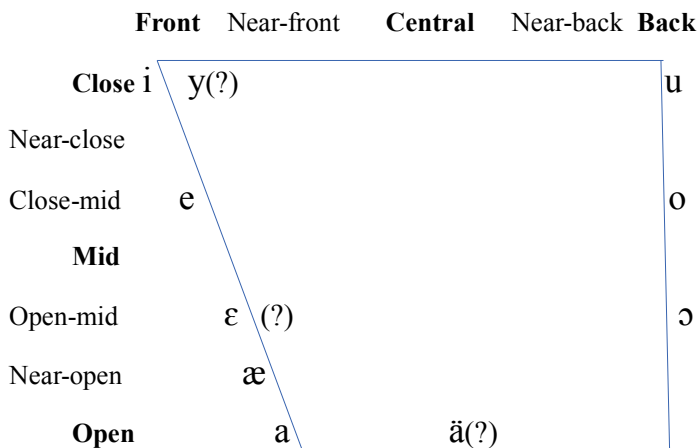

Fig. 2 Volpicelli's MC vowel system
The value of three vowels is uncertain

3.3. The legacy of Volpicelli's ideas

Volpicelli's ideas were almost completely ignored by his successors. Although Karlgren (1926: 8) stated that "M. Volpicelli a décidément plus de mérite. Son idée d'exploiter les dialectes en masse pour trouver la clef de l'ancien chinois, au lieu de choisir au hasard des formes isolées, est absolument juste, cela va sans dire," he apparently opted to adhere to Schaank's *Leitmotiv*, giving extreme importance to the rime books and rime tables. This tradition is clearly epitomized by Karlgren's medial glide in Grade III rimes, a feature which, for convenience, persists *ad hoc tempus*. As argued above, Pulleyblank (1962) was the first scholar to reject Karlgren's spurious medial glide system, although it was Volpicelli who, *ante tempus,* abandoned this tradition. It was only in the late 1980s that this paradigm was seriously challenged, following the studies of Zhèngzhāng (1987), Starostin (1989), and others nourished with new blood the study of Chinese phonology, even though the Karlgrenian scheme was retained in Baxter's system (1996).

However, Volpicelli's method of exploiting from Chinese dialects, along with his emphasis on "living" Chinese dialects[12] were also echoed by later scholars. Volpicelli did not reject the use of rime tables, he simply took them as the starting point for his investigation of Chinese dialects and Sinoxenic materials. Seen from this perspective, Volpicelli's work is undoubtedly closer to a linguistic ʿreconstructionʾ than Karlgren's *magnum opus*, for the adopted methodology of the former more closely resembles the comparative method, though Volpicelli seemed innocent of the principle of regularity of sound changes and of their *Ausnahmslosigkeit*.

It is quite regrettable that almost none of Volpicelli's ideas survived in the later essays on the subject, and that his research was largely ignored by

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12   Volpicelli based his analysis of Chinese dialects on the pioneering works of Edkins, Parker and Giles. Had Volpicelli consulted first-hand materials, he would have obtained a much better result.

workers in the post-Karlgrenian tradition.[13]

4. How useful is Volpicelli's reconstruction for understanding Middle Chinese?

Before answering this question, it is important to make one point clear at the outset: Volpicelli's reconstructed phonetic inventory of Middle Chinese is not a 'linguistic reconstruction' as intended according to the principles exposed by the *Junggrammatiker* of the Leipziger Schule. The technique employed for the reconstruction of Old and Middle Chinese has never been the 'comparative method', intended as the technique which renders feasible the recovery of the structure of earlier linguistic forms by means of the identification of sound correspondences in grammar, lexicon and morphology, but a *sui generis* method of interpretation, identification and transcription of the attested forms conveyed by rime books, rime tables and old poetries.

Volpicelli's reconstructed system is much simpler than the *Qièyùn* system. Hence, it may be considered as an elegant though incomplete picture which shows the distribution of initials, vowels and finals of the rime tables contained in *Kāngxī zìdiǎn*.

Volpicelli did not recognize the distinction between *zhào èr* 照二 and *zhào sān* 照三 groups, nor he did recognize the distinction between *yù sān* 喻三 and *yù sì* 喻四 groups, or between the *chuān èr* 穿二 and the *chuān sān* 穿三 groups, the *chuáng èr* 床二 and the *chuáng sān* 床三 groups and the *shěn èr* 審二 and

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13   Personal note: In a closed letter to me, Ang Ui-jin 洪惟仁 , former professor at the National Taichung University of Education, expressed his personal admiration for Volpicelli's ideas, which he considered very "insightful." A small evaluation of Volpicelli's "reconstructions" is contained in his "Xiaochuan Shangyi yu Gao Benhan Hanyu yuyin yanjiu zhi bijiao 小 川尚義與高本漢漢語語音研究之比較 " [*Comparison of Research on Chinese Phonology by Ogawa and Karlgren*] (1994, vol. I, no. 2). An evaluation of Volpicelli's linguistic ideas can be found in *Luó Chángpéi wénjí* 羅常培文集 , vol. 6, 2001, pp. 451-464., but the tone of Luó's 羅 evaluation is far from enthusiastic.

shěn sān 審三 groups.

Many linguists, unfortunately, still believe that reconstructed systems must have a simpler phonological structure than their daughter languages. In fact, every linguist who works in the received tradition of Indo-European linguistics tends to reconstruct systems which are *more* complex, for he or she has to account for all the correspondences observed among cognate forms in the attested descendant languages.[14] For example, Indo-Europeanists have reconstructed three velar series, even though no attested Indo-European language shows such a full range of velar stops. However, given that Sanskrit *ś-* corresponds to Greek, Latin, Tocharian, etc. *k-*, and to Gothic *h-* in anlaut (*g-* elsewhere), and that Sanskrit k- corresponds to Latin, Greek and Hittite *k-* or Tocharian *k-* and *ś-*, Indo-Europeanists have generally reconstructed respectively Proto-Indo-European *$*\acute{k}$-* and *$*k$-*. Furthermore, the correspondences between Sanskrit *gh-*, Old Church Slavonic *g-*, Latin *gu-* or *f-* (in anlaut) and Gothic *gw-*, clearly suggest that the Indo-European *Ursprache* had a more elaborate phonemic structure and a more complex phonetic inventory. For this reason, linguists needed to reconstruct a third series of labiovelars, *viz.* *$*k^w$, *$*g^w$ and *$*g^{wh}$, even though no Indo-European language has more than two such phonemes.[15]

Unfortunately, Karlgren's system (as well as other systems), though more complex than that of Volpicelli, was also flawed, for it was an overcomplicated, generalizing and redundant system with features and distinctions without parallel in any attested form of Chinese. Roy Andrew Miller (1975) was perhaps the most radical "iconoclast" of Karlgren's system since he totally

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14   This is not to imply that a daughter language can *never* become more complex and differentiated than its ancestor language. There are cases in which a conditioned split is followed by the loss of the split-conditioning factor. This leads to the phonologization of the formerly redundant phonetic difference, and hence to a major differentiation of the daughter language.

15   There are scholars who believe that they are attested in Albanian. For further literature about PIE three velar series, see Beekes (2011: 124).

denied that there is anything in the Chinese dialects to correspond to the Grades, "as with so many of the other categories and distinctions that, on the face of it at least, may be deduced from the rime books and rime tables" (Pulleyblank, 1984: 74). Though excessively radical, Miller's criticism may be regarded as a useful reminder that language reconstructions are not about attempting to reconstruct artificial systems, but about attempting to recover and to identify the nature and structure of an earlier unity based on surviving evidence.

Moreover, the rime tables, *per se*, are *not* a form of language, and thus the system reflected by *Qièyùn* is not necessarily identical to real Middle Chinese. As rightly pointed out by Branner (1999, 2006), rime tables reflect an analytical system whose attested forms need to be transcribed rather than reconstructed. Although linguistic reconstruction is prevalently a fieldwork-based historical research, it is no exaggeration to say that every mainstream "reconstruction" of Middle Chinese is instead a text-based philological research.[16] It follows that even the most accurate transcription of Middle Chinese does not (because it simply cannot) reflect the real homogeneous language (if any) which was spoken by the Chinese during the Suí (581–618) and Táng (618–907) dynasties. There was probably a "medieval" language

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16 A most notable exception is Norman (1995, 2006), who has used the comparative method to reconstruct the Proto-Min language. Furthermore, in his *Common Dialectal Chinese* (2006), Norman suggested that the comparative method and simplification of the *Qièyùn* categories could achieve the same result. I find Norman's practice very reasonable and useful, even though it is not the mainstream approach to the subject. Given that the comparative method has been successful for so many languages in the world, and that the application of the standard comparative method to non-Indo-European and non-Semitic languages has a history as long as that of the application of the comparative method to Indo-European and Semitic, the general neglect of the Neogrammarian model in the field of Chinese phonology strikes me as incredible. For further information about Norman's approach, the interested reader should consult his essay "Common Dialectal Chinese" in *The Chinese Rime Tables: Linguistic Philosophy and Historical-Comparative Phonology* (Amsterdam/Philadelphia: John Benjamins Publishing Company, 2006): 233–254.

whence almost all the attested Chinese dialects (with the exception of Min) derive their basic structure, but our transcription of Middle Chinese from the rime tables, no matter how uniform and scientifically plausible it might be, does not portray real Middle Chinese, for the discovery of the degree of uniformity and dialectalization which was inherent in it is beyond our current level of understanding.[17]

5.Closing Remarks

The original question remains: how useful is Volpicelli's reconstruction for the understanding of Middle Chinese? Despite its great limits, I believe that Volpicelli's "reconstructed" Ancient Chinese (i.e. Middle Chinese) is closer to a real-world language, given that it does not encompass many obscure phonological features which have been included in the synthetic, diachronic and diasystem-based rhyme books, such as redundant palatal glides in Grades III and IV rimes. Because Volpicelli, unlike Schaank (1897) and Karlgren (1915–26), did not reach the same level of "hyper-analysis" of the rime tables, his reconstructed Middle Chinese system, though incomplete, is more similar to a living language (perhaps real Middle Chinese?). Hence, from this perspective, Volpicelli's system is more insightful than that of his peers.

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17   For a parallel in Indo-European studies, see Pulgram (1959).

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沃爾皮切粒——
一名不見經傳的漢語音韻學家

羅　巍*

摘　要

　　到上世紀七十年代為止，高本漢的《中國音韻學研究》被公認為國內外最重要的漢語音韻學著作。這也使得他之前的學者關於音韻學研究的著作和論文的成就被遮掩。沃爾皮切粒的《中國音韻學》就是其中之一。本文的目標是進一步分析《中國音韻學》一書的主要成就、不足及其影響力。此外，本文的另一個目的是證明在高本漢之前已經有歐美學者對傳統的中國音韻學作出貢獻。

關鍵詞：沃爾皮切粒、中國音韻學史、中古音、韻書、韻圖